

Title (en)

An improved power-on reset circuit for controlling test mode entry

Title (de)

Verbesserte Einschaltrücksetzschaltung zur Prüfmoduseintrittssteuerung

Title (fr)

Circuit amélioré de remise à zéro à la mise sous tension pour commander l'entrée en mode de test

Publication

EP 0773552 A2 19970514 (EN)

Application

EP 96113904 A 19910812

Priority

- EP 91307424 A 19910812
- US 56900090 A 19900817

Abstract (en)

An integrated circuit having a normal operating mode and a special operating mode, such as a special test mode, is disclosed. The special test mode is enabled by a series of signals, such as overvoltage excursions at a terminal, rather than by a single such excursion, so that it is less likely that the special test mode is entered inadvertently, such as due to noise or power-down and power-up of the device. The circuit for enabling the test mode includes a series of D-type flip-flops, each of which are clocked upon detection of the overvoltage condition together with a particular logic level applied at another terminal; multiple series of flip-flops may be provided for multiple special test modes. Additional features include the provision of a power-on reset circuit which locks out the entry into the test mode during power-up of the device. Acknowledgment of the entry into test mode is provided by the presentation of a low impedance at output terminals while the device is not enabled; chip enable of the device causes the device to exit the test mode. Once in test mode, the output enable terminal of the device can provide a chip enable function. <IMAGE>

IPC 1-7

G11C 29/00; **G01R 31/318**

IPC 8 full level

G06F 1/26 (2006.01); **G01R 31/317** (2006.01); **G06F 1/24** (2006.01); **G11C 7/22** (2006.01); **G11C 29/46** (2006.01); **H03K 3/037** (2006.01); **H03K 3/356** (2006.01)

CPC (source: EP KR US)

G01R 31/31701 (2013.01 - EP US); **G06F 1/24** (2013.01 - EP US); **G11C 7/22** (2013.01 - EP US); **G11C 29/00** (2013.01 - KR); **G11C 29/46** (2013.01 - EP US); **H03K 3/0375** (2013.01 - EP US); **H03K 3/356008** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0471542 A2 19920219; **EP 0471542 A3 19930224**; **EP 0471542 B1 19970312**; DE 69125069 D1 19970417; DE 69125069 T2 19971009; EP 0773552 A2 19970514; EP 0773552 A3 20000419; JP 3571729 B2 20040929; JP H05233099 A 19930910; KR 100205446 B1 19990701; KR 920005165 A 19920328; US 5115146 A 19920519

DOCDB simple family (application)

EP 91307424 A 19910812; DE 69125069 T 19910812; EP 96113904 A 19910812; JP 20586791 A 19910816; KR 910014033 A 19910814; US 56900090 A 19900817